Δx or Δy : Terminal − Initial

Initial   Terminal

Find a parametrizations for the curve.
$t = 0$ $t = 1$

A) The line through the points A = (-2, -5) and B = (3, 6)

$\Delta x = -2 - 3 = -5$
$= 3 - (-2) = 5$

$\Delta y = -5 - 6 = -11$
$= 6 - (-5) = 11$

$x = 5t + (-2)$ $y = 11t + (-5)$

$x = \Delta x\, t + \text{starting } x$ $y = \Delta y\, t + \text{starting } y$

Initial

$t = 0$ $t = 1$

B) The line segment with endpoints A = (-1, 5) and B = (2, 11)
          x   x

$\Delta x = 2 - (-1) = 3$ $\Delta y = 11 - 5 = 6$

$x = 3t - 1$ $y = 6t + 5$

$0 \leq t \leq 1$

C) The circle with radius of 5 and centered at (0, 0)

$x = 5\cos\theta$ $y = 5\sin\theta$

C) The circle with radius of 3 and centered at (-2, 4)

$x = 3\cos\theta - 2$ $y = 3\sin\theta + 4$